CLAIMS

I claim:

1. An electrical circuit for producing a stable voltage at a circuit output, comprising:

an operational amplifier;

said amplifier having an inverting input node and an amplifier output node;

at least one light-emitting diode in series electrically connected to said amplifier output node;

at least two photovoltaic diodes arranged in electronically isolated diode pairs;

each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode;

each isolated diode pairs comprised of a first diode set and a second diode set;

each of said first diode set electrically connected in series in a chargeable closed circuit to said inverting input node; and

each of said second diode set electrically connected in series to said circuit output.

2. The electrical circuit in claim 1 further comprising:

a reference voltage source;

said first diode set connected to said reference voltage source.

3. The electrical circuit in claim 2 where:

said reference voltage source providing an adjustable voltage.

4. The electrical circuit in claim 1 further comprising:

a capacitor electrically connected to said amplifier output node and said inverting input node.

5. The electrical circuit in claim 4 further comprising:

said first diode set having a number of individual diodes in series; and

said inverting input node connected to first diode set intermediate an equal number of said individual diodes.

6. The electrical circuit in claim 1 further comprising:

a balanced pair of resistors connected in parallel with said first diode set; and

said inverting input node connected to said first diode set intermediate said balanced pair of resistors.

7. The electrical circuit in claim 1 further comprising:

equivalent resistance connected in parallel with each of said first diode set and said second diode set.

8. The electrical circuit in claim 1 further comprising:

resistance connected intermediate said amplifier output node and said at least one light-emitting diode.

9. A method for producing a stable voltage comprising:

initiating a drive current through a drive circuit, said drive circuit containing an operational amplifier, said amplifier having an inverting input node and an amplifier output node, at least one light-emitting diode in series and said at least one light-emitting diode electrically receiving said drive current from said amplifier output node;

inducing at least two electrically isolated driven currents in at least one electrically isolated controlled circuit and at least one electrically isolated controlling circuit, said controlled circuit having at least one photovoltaic diode, each said at least one photovoltaic diode arranged in electrically isolated pairs with at least one photovoltaic diode of said controlling circuit each, each said at least one photovoltaic diode of each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode, each isolated diode pairs comprised of a controlling diode and a controlled diode, each of said controlling diodes electrically connected in series in a chargeable closed circuit to said inverting input node and each of said controlled diodes electrically connected in series to said circuit output;

stabilizing said electrically isolated driven current of each said at least one electrically isolated controlled circuit by adjusting said driven current with said drive current corrected by said operational amplifier for a correcting signal at said inverting input node.

10. The method of claim 9 wherein:

said controlling diodes generate said correcting signal to said inverting input node.

11. The method of claim 9 wherein:

said correcting signal is 0 when circuit is in a stable condition.

12. An electrical circuit for producing a stable voltage at a circuit output, comprising:

an operational amplifier;

said amplifier having an inverting input node and an amplifier output node;

at least one light-emitting diode in series electrically connected to said amplifier output node;

at least two photovoltaic diodes arranged in electronically isolated diode pairs;

each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode;

each isolated diode pair comprised of a first diode set and a second diode set;

a balanced pair of resistors connected in parallel with said first diode set;

a potentiometer connected to said first diode set intermediate said balanced pair of resistors;

said inverting input node connected to said potentiometer;

each of said second diode set electrically connected in series to said circuit output.

13. An electrical circuit for use with a chromatographic ionization detector for producing a stable voltage at a circuit output, comprising:

an operational amplifier;

said amplifier having an inverting input node and an amplifier output node;

at least one light-emitting diode in series electrically connected to said amplifier output node;

at least two photovoltaic diodes arranged in electronically isolated diode pairs;

each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode;

each isolated diode pairs comprised of a first diode set and a second diode set;

each of said first diode set electrically connected in series in a chargeable closed circuit to said inverting input node; and

each of said second diode set electrically connected in series to said circuit output.

14. The electrical circuit for use with a chromatographic ionization detector in claim 13 further comprising:

a reference voltage source;

said first diode set connected to said reference voltage source.

15. The electrical circuit for use with a chromatographic ionization detector in claim 14 where:

said reference voltage source providing an adjustable voltage.

16. The electrical circuit for use with a chromatographic ionization detector in claim 13 further comprising:

a capacitor electrically connected to said amplifier output node and said inverting input node.

17. The electrical circuit for use with a chromatographic ionization detector in claim 16 further comprising:

said first diode set having a number of individual diodes in series; and

said inverting input node connected to first diode set intermediate an equal number of said individual diodes.

18. The electrical circuit for use with a chromatographic ionization detector in claim 13 further comprising:

a balanced pair of resistors connected in parallel with said first diode set; and

said inverting input node connected to said first diode set intermediate said balanced pair of resistors.

19. The electrical circuit for use with a chromatographic ionization detector in claim 13 further comprising:

equivalent resistance connected in parallel with each of said first diode set and said second diode set.

20. The electrical circuit for use with a chromatographic ionization detector in claim 13 further comprising:

resistance connected intermediate said amplifier output node and said at least one light-emitting diode.

21. A method for producing a stable voltage for use with a chromatographic ionization detector comprising:

initiating a drive current through a drive circuit, said drive circuit containing an operational amplifier, said amplifier having an inverting input node and an amplifier output node, at least one light-emitting diode in series and said at least one light-emitting diode electrically receiving said drive current from said amplifier output node;

inducing at least two electrically isolated driven currents in at least one electrically isolated controlled circuit and at least one electrically isolated controlling circuit, said controlled circuit having at least one photovoltaic diode, each said at least one photovoltaic diode arranged in electrically isolated pairs with at least one photovoltaic diode of said controlling circuit each, each said at least one photovoltaic diode of each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode, each isolated diode pairs comprised of a controlling diode and a controlled diode, each of said controlling diodes electrically connected in series in a chargeable closed circuit to said inverting input node and each of said controlled diodes electrically connected in series to said circuit output;

stabilizing said electrically isolated driven current of each said at least one electrically isolated controlled circuit by adjusting said driven current with said drive current corrected by said operational amplifier for a correcting signal at said inverting input node.

22. The method of claim 21 wherein:

said controlling diodes generate said correcting signal to said inverting input node.

23. The method of claim 21 wherein:

said correcting signal is 0 when circuit is in a stable condition.

23. An electrical circuit for use with a chromatographic ionization detector for producing a stable voltage at a circuit output, comprising:

an operational amplifier;

said amplifier having an inverting input node and an amplifier output node;

at least one light-emitting diode in series electrically connected to said amplifier output node;

at least two photovoltaic diodes arranged in electronically isolated diode pairs;

each of said isolated diode pairs positioned in uniform operational proximity to one of said at least one light-emitting diode;

each isolated diode pair comprised of a first diode set and a second diode set;

a balanced pair of resistors connected in parallel with said first diode set;

a potentiometer connected to said first diode set intermediate said balanced pair of resistors;

said inverting input node connected to said potentiometer;

each of said second diode set electrically connected in series to said circuit output